Title (en)

GAS TURBINE

Title (de)

GASTURBINE

Title (fr)

TURBINE À GAZ

Publication

EP 3168416 A1 20170517 (EN)

Application

EP 16197802 A 20161108

Priority

US 201514937992 A 20151111

Abstract (en)

A gas turbine (10) includes a turbine (16) and an axial-radial diffuser (18). The turbine includes a last stage airfoil section (28) having a first inner annular wall (58), a plurality of airfoils (100), a tip shroud including a first outer annular wall (102), and a stationary shroud (52) including a second outer annular wall (70). The first inner and the first and second outer annular walls are angled at a first inner and a first and second outer angle average (± 3 , ˏ 3 , ˏ 4), respectively. The axial-radial diffuser includes third inner and outer annular walls (62, 74), wherein the third inner and outer annular walls (62, 74) are angled at a third inner and outer angle average (± 5 , ˏ 5), respectively. The first outer angle average is greater than the third (ˏ 3 >ˏ 5), the first inner angle average is greater than the third (± 3 >± 5), and the third outer angle average is greater than the second (ˏ 5 >ˏ 4).

IPC 8 full level

F01D 5/14 (2006.01); **F01D 25/30** (2006.01)

CPC (source: CN EP US)

F01D 5/02 (2013.01 - US); **F01D 5/143** (2013.01 - EP US); **F01D 5/225** (2013.01 - US); **F01D 9/04** (2013.01 - CN); **F01D 9/041** (2013.01 - US); **F01D 25/00** (2013.01 - CN); **F01D 25/24** (2013.01 - US); **F01D 25/30** (2013.01 - EP US); **F02C 3/04** (2013.01 - US); F01D 5/145 (2013.01 - EP US); F05D 2220/32 (2013.01 - US); F05D 2220/3215 (2013.01 - EP US); F05D 2240/128 (2013.01 - US); F05D 2240/35 (2013.01 - US); F05D 2250/38 (2013.01 - EP US)

Citation (search report)

- [A] US 2012102956 A1 20120503 - NANDA DEEPESH D [IN], et al
- [A] WO 2014156961 A1 20141002 - MITSUBISHI HEAVY IND LTD [JP]
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- [A] EP 0528138 A1 19930224 - ASEA BROWN BOVERI [CH]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3168416 A1 20170517; **EP 3168416 B1 20190109**; CN 106988797 A 20170728; CN 106988797 B 20201023; JP 2017089637 A 20170525; JP 6804265 B2 20201223; US 2017130596 A1 20170511

DOCDB simple family (application)

EP 16197802 A 20161108; CN 201610994183 A 20161111; JP 2016214742 A 20161102; US 201514937992 A 20151111